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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------|-------------|----------------------|---------------------|------------------|
| 09/816,483 | 03/26/2001 | Chung-Ping Huang | TM-8949 | 9804 |
| 7590 | | 09/20/2004 | EXAMINER | |
| Hung Chang LIN | | PHU, PHUONG M | | |
| 8 Schindler Court | | ART UNIT | | |
| Silver Spring, MD 20903 | | PAPER NUMBER | | |
| | | 2631 | | |

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 09/816,483 | Applicant(s) HUANG ET AL. | |
| | Examiner Phuong Phu | Art Unit 2631 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-7 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. The claim objected to because of the following informalities: There is no claim 3.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 2, 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Jacob (4,574,247).

As per claim 1, see figures 2 and 3, and col. 3, line 16 to col. 4, line 14, Jacob discloses a system (figure 2) comprises:

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a counter (34) for counting a number of pulses (D) of an incoming signal (32) within a time slot (sample time);

a comparator (40) for comparing said number of pulses with a preset number (N), yielding a high voltage level (digital "1") when the number of pulses exceeds N and a low voltage level (digital "0") when the number of pulses is less than N (see col. 3, lines 55-58 and figure 3);

a time slot generator (36) for generating time slots and for sectionalizing said incoming signal wherein there is inherently a time widow greater than said time slot(s); and

a latch (42) fed by said comparator and enabled by said time slot generator to output voltage level at the end of each time slot.

As per claim 2, Jacob discloses a decoder for converting the voltage output of said latch into digital signal (see col. 3, lines 59-65).

As per claim 4, Jacob discloses the preset number is greater than one ($N=525$) (see col. 3, line 48).

As per claim 5, in Jacob, a time widow (see a time widow of figure 3) is greater than a time slot (sample time).

As per claim 6, Jacob discloses that said preset number is preset within said comparator where said comparator comprises elements (38, 40).

4. Claims 1, 2, 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Maresca (6,137,844).

As per claim 1, see figure 3, and col. 4, lines 24-55, Maresca discloses a system comprises:

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a counter (300) for counting a number of pulses of an incoming signal (FM DEM) within a time slot (data period);

a comparator (310) for comparing said number of pulses with a preset number ($N=12$), yielding a high voltage level (digital "1") when the number of pulses exceeds or equal to the preset number and a low voltage level (digital "0") when the number of pulses is less than the preset number (see col. 4, lines 46-54);

a time slot generator (CLK, DATA CLOCK) for generating time slots (data periods) and for sectionalizing said incoming signal wherein there is inherently a time widow greater than said time slot(s); and

a latch (320) fed by said comparator and enabled by said time slot generator to output voltage level at the end of each time slot (see col. 4, lines 53-56).

As per claim 2, Maresca discloses a decoder for converting the voltage output of said latch into digital signal (see col. 4, lines 53-56).

As per claim 4, Maresca discloses the preset number is greater than one ($N=12$) (see col. 4, lines 46-48).

As per claim 5, in Maresca, a time widow (see a time widow of figure 4) is greater than a time slot.

As per claim 6, Maresca discloses that said preset number is preset within said comparator (see figure 3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacob.

As per claim 7, Jacob does not disclose whether said preset number is programmed by a register.

Jacob discloses that preset number is stored in a memory (38) (see figure 2).

Using a programmable register as a memory to store a number and retrieve it at desired times is well-known in the art, and the examiner takes Official Notice.

Therefore, for an application, since Jacob does not disclose how the memory (38) is implemented, it would have been obvious for one skilled in the art, when building or carrying out Jacob invention, to implement the memory (38) with a well-known programmable register to store the preset number (namely, the preset number is programmed to store by said register).

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maresca.

As per claim 7, Maresca does not disclose whether said preset number is programmed by a register.

Maresca discloses that preset number is retrieved to the comparator for a comparison (see figure 3).

Using a programmable register as a memory to store a number and retrieve it at desired times is well-known in the art, and the examiner takes Official Notice.

Therefore, for an application, since Maresca does not disclose how the preset number is retrieved, it would have been obvious for one skilled in the art, when building or carrying out Maresca invention, to implement a well-known programmable register to store the preset number

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(namely, the preset number is programmed to store by said register) to retrieve it later at required times to the comparator for comparisons.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 571-272-3009. The examiner can normally be reached on M-F (8:30-6:00) First Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Phuong Phu
08/25/04

Phuong Phu
Primary Examiner
Art Unit 2631

**PHUONG PHU
PRIMARY EXAMINER**